

Wild oat control with grass and broadleaf herbicide combinations in spring wheat at Crookston, MN - 2011. Durgan, Beverly R., Jochum Wiersma, Jim Cameron, and Douglas Miller. The objective of this experiment was to evaluate wild oat control and crop injury with several grass herbicides alone and in combination with broadleaf herbicides. The experiment was conducted at Crookston, MN on a Donaldson and Wheaton loam soil. Following weedy fallow, the experimental area received 100 lb/A of N and was fall plowed. In the spring of the following year, the experimental area was disked and harrowed. 'RB07' hard red spring wheat was seeded on May 17 at 1.5 Bu/A. All herbicide treatments were applied with a backpack type sprayer delivering 10 gpa at 30 psi using 80015 flat fan nozzles. The experimental design was a randomized complete block with three replications and plot size was 10 by 16 ft. Application data and environmental conditions are listed below. Crop injury and wild oat control were visually rated. Yields were measured. All data are presented in the table below.

Treatment Date	June 2	June 9
Target wild oat stage	1-3 leaf	3-5 leaf
Air temperature (°F)	63	65
Relative humidity (%)	52	35
Soil temperature (°F)	56	60
Wind	SE 13 mph	E 3.5
Sky	cloudy	clear
Rainfall before Application		
Week 1 (inch)	1.15	0.25
Rainfall after Application		
Week 1 (inch)	0.25	0.22
Week 2 (inch)	0.22	1.28

Wild oat control was excellent for all treatments except for the 1 oz rate of Everest 2.0 in tank mix with Supremacy (the 0.75 oz Everest 2.0 plus Supremacy provided excellent control). Early injury symptoms were crop chlorosis and stunting. Injury symptoms at the later rating dates were noted as growth reduction. The most severe symptoms were observed with the Rimfire Max/adjuvant plus Huskie tank mixes. Injury was less severe when Rimfire Max/adjuvant was applied alone and was similar to the GoldSky treatment. 636 4-Way and Raze caused slight to moderate injury and Everest 2.0 treatments generally showed slight injury symptoms. Axial XI, Wolverine, Puma, and A17713 caused the least amount of injury. All Injury symptoms declined with time and none were observed in any treatment at the last rating date. All treatments resulted in yields significantly higher than the untreated check. The Rimfire Max/Huskie/Destiny tank mix was the lowest yielding of all treatments. The Puma treatment yielded the highest.

Wild oat control with grass and broadleaf herbicide combinations in spring wheat at Crookston, MN – 2011.
Durgan, Wiersma, Cameron, and Miller.

Treatment	Rate	Wild Oat Control			Wheat Injury					Wheat Yield (Bu/A)
		7/8	7/15	7/29	6/10	6/17	7/8	7/15	7/29	
	Product/A	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Application #1 (June 2)										
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	99	99	99	8	0	0	0	0	61
Everest 2.0 + Supremacy + Newtone	0.75 oz + 5 oz + 12.8 oz	99	99	99	8	0	2	0	0	62
Application #2 (June 9)										
Everest 2.0 + Newtone	0.75 oz + 12.8 oz	99	99	99	--	5	2	2	0	59
Everest 2.0 + Supremacy + Newtone	0.75 oz + 5 oz + 12.8 oz	98	99	99	--	12	2	2	0	60
Everest 2.0 + Widematch + MCPA ester + Newtone	0.75 oz + 1 pt + 0.5 pt + 12.8 oz	99	99	99	--	7	3	5	0	55
Everest 2.0 + Supremacy + Newtone	1.0 oz + 5 oz + 12.8 oz	90	82	80	--	2	0	2	0	57
Raze + ARY-0546-001 + ARY-0547-001 + Newtone	7.0 oz + 0.3 oz + 0.1 oz + 12.8 oz	98	99	99	--	10	8	3	0	57
Raze + ARY-0546-001 + ARY-0547-001 + Newtone	9.0 oz + 0.3 oz + 0.1 oz + 12.8 oz	98	99	99	--	12	12	1	0	58
Axial XL + Supremacy	16.4 oz + 0.5 oz	99	99	99	--	0	0	0	0	62
Axial XL	16.4 oz	99	99	99	--	2	0	0	0	60
GoldSky + Newtone	1 pt + 12.8 oz	99	99	98	--	28	23	5	0	55
Wolverine	27.4 oz	99	96	94	--	2	3	0	0	59
Puma	0.66 pt	98	99	99	--	0	0	0	0	67
Rimfire Max + Destiny	3 oz + 1.5 pt	99	99	99	--	27	15	5	0	57
Rimfire Max + Huskie + Destiny	3 oz + 11 oz + 1.5 pt	99	98	99	--	47	23	5	0	51
Rimfire Max + Huskie + Quad 7	3 oz + 11 oz + 0.8 pt	99	99	99	--	40	25	5	0	54
636 4-Way	13.69 oz	98	99	99	--	17	7	0	0	55
A17713	8.2 oz	99	99	99	--	3	0	2	0	61
Weedy Check	--	--	--	--	0	0	0	0	0	27
LSD (0.05)		3	2	3	ns	9	5	3	ns	7

Everest 2.0 3.5SC = flucarbazone-sodium & cloquintacet (safener).

Newtone = ammonium salt, buffering agent, and surfactant blend.

Supremacy 31WG = thifensulfuron (4.5%) & tribenuron (1.5%) & fluroxypyr (25% ae).

Widematch 1.5E = clopyralid (0.75 lb ae/gal) & fluroxypyr (0.75 lb ae/gal).

MCPA Ester 4E.

Raze 2L = flucarbazone-sodium (0.322 lb ai/gal) & fluroxypyr ester (1.68 lb ae/gal).

ARY-0546-001 75WG = thifensulfuron.

ARY-0547-001 75WG = tribenuron.

Axial XL 0.42EC = pinoxaden and adigor adjuvant.

GoldSky 0.84L = pyroxsulam (0.11 lb ai/gal) & fluroxypyr (0.71 lb ae/gal) & florasulam (0.018 lb ai/gal).

Wolverine 1.38E = fenoxaprop-p-ethyl (0.38 lb ai/gal) & pyrasulfotole (0.17 lb ai/gal) & bromoxynil octanoate (0.41 lb ai/gal) & bromoxynil heptanoate (0.42 lb ai/gal)

Puma 1EC = fenoxaprop and safener.

Rimfire Max 6.67WDG = propoxycarbazone-sodium (4.76%) & mesosulfuron-methyl (1.91%).

Destiny = methylated soybean oil plus emulsifiers.

Huskie 2.08EC = pyrasulfotole (0.23 lb ai/gal) & bromoxynil 1.85 lb ai/gal) & safener.

Quad 7 = ammonium salt, buffering agent, and surfactant blend.

636 4-Way = premix from Bayer CropScience.

A17713 = experimental from Syngenta.